Amendments to the Claims

Please cancel claims 4-9, 13 and 14 without prejudice.

This listing of claims will replace all prior versions, and listings, of the claims in the application:

Listing of the Claims:

1. (Currently Amended) A medical diagnosis system comprising:

a pupilometer for obtaining a first set of data [descriptive] representative of one or more pupilary characteristics from an eye of an individual;

[a] an amplitude modulated light source in electrical communication with the pupilometer, said light source directed at the individual when the pupilometer is positioned to obtain data from the eye;

a central processing unit in communication with the pupilometer and the light source, [said central processing unit capable of controlling the amplitude of the light source] wherein the central processing unit controls the amplitude of the light source.

2. (Currently Amended) The system of claim 1, further comprising a database for storing a second set of data [descriptive] representative of one or more pupilary characteristics, and wherein the central processing unit [is capable of comparing the first set of data with the second set of data to detect neurological deterioriation] compares the first set of data with the second set of data to detect neurological deterioriation.

3. (Original) The system of claim 1, wherein the first set of data comprises pupilary latency indicia, pupilary constriction velocity indicia, first and second

dilation velocity indicia, pupilary amplitude indicia, pupilary diameter indicia, segmental dynamic analysis indicia, or segmental static analysis indicia.

4. (Cancel)

5. (Cancel)

6. (Cancel)

7. (Cancel)

8. (Cancel)

9. (Cancel)

10. (Currently Amended) The system of claim 1, wherein the central processing unit comprises an algorithm [configured to convert] that converts said first set of data to one or more scalar values.

11. (Currently Amended) The system of claim 1, wherein the central processing unit [is capable of storing] stores temporal data.

12. (Currently Amended)The system of claim 1, wherein the central processing unit [is capable of controlling] sequences [temporal data] the light source.

13. (Cancel)

14. (Cancel)

15. (New) A medical diagnosis system comprising:

a pupilometer for obtaining a first set of data representative of one or more pupilary characteristics from an eye of an individual;

an amplitude modulated light source in electrical communication with the pupilometer, the light source adapted for stimulating an eye over a continuous range of amplitudes;

a central processing unit in communication with the pupilometer and the light source.

16. (New) The medical diagnosis system of claim 15, wherein the central processing unit controls the amplitude of the light source.

17. (New) The medical diagnosis system of claim 15, further comprising a database for storing a second set of data representative of one or more pupilary characteristics, and wherein the central processing unit compares the first set of data with the second set of data to detect neurological deterioriation.

18. (New) The medical diagnosis system of claim 15, wherein the central processing unit comprises an algorithm that converts said first set of data to one or more scalar values.

19. (New) The medical diagnosis system of claim 15, wherein the central processing unit stores temporal data.

20. (New) The medical diagnosis system of claim 15, wherein the central processing sequences the light source.